



The Skylinx® system promises an easy path to upgrades and added features with its multi-slot design, and now you can take advantage of that expandability with our High-Speed Data Channel Unit (HSCU). The HSCU addresses circuit switched, bandwidth on demand applications such as LAN to LAN connections, videoconferencing, file transfer, and Internet access. It significantly reduces costly satellite bandwidth and EIRP with a combination of powerful DAMA software and Reed-Solomon coding. The unit may be configured to work in conjunction with our advanced on-demand bandwidth reduction features or to set up permanently assigned channels.

The HSCU provides a transparent path for synchronous data transmissions from 32 kbps up to 2.048 Mbps. Using our V.25bis software option in conjunction with the dial on demand feature of industry leading IP routers, the HSCU reduces satellite bandwidth costs for mesh IP networks. The unit can operate with different send and receive rates to reduce satellite bandwidth for IP applications with asymmetric traffic patterns as well.

For video communications you can use the HSCU in conjunction with the Skylinx "Handset Initiated Data" feature for on-demand circuit switched videoconferencing. The simple addition of an IP router enables H.323 IP packet-based videoconferencing.

SKYLINX® SL8000 AT-A-GLANCE

- » Up to 4 channels per chassis with additions or changes made with plug-in modules.
- » Data, voice, fax
- » Software upgrades downloadable by satellite
- » C-band, Extended C-band or Ku-band
- » Mesh DAMA or star configurations
- » Desktop or rack-mount
- » RF/IF conversion module lets you add chassis for more channels from the same outdoor RF setup
- » Compatible with Skylinx SL8000 Multi-Channel Remote Terminals

SPECIFICATIONS

User Data Rates	See chart below
User Data Format	Synchronous user data
Clocking	Internal and external (terminal timing)
IF Frequency	52 to 88 MHz in 1 Hz steps
Transmit Level	0 to -30 dBm in 0.1 dB steps
Receive Level	-45 to -70 dBm
Modulation	QPSK for user data. BPSK for NMS signaling
FEC	1/2, 3/4, and 7/8
Coding (User Data)	Selectable Concatenated Reed-Solomon/convolutional coding and interleaving with K = 7 Viterbi decoding or convolutional only
NMS Signaling Channel Mode	16 kbps BPSK, FEC = 1/2
Monitor and Control	Via Skylinx NMS & PMT
Operational Modes	Pre-assigned (PAMA) or on-demand (DAMA)

Data Bandwidth On Demand Modes

- » NMS operator commands
- » PMT user commands
- » RTS lead activation
- » Optional timed events feature
- » Optional V.25bis protocol
- » Optional handset initiated feature

Link Compatibility with Other Skylinx Channel Units

Compatible over the satellite link with Skylinx 7800 and 8000 series voice channel units and 160 kbps data channel units when programmed for common transmission parameters

Electrical Interface:

- » Selectable EIA-530A and V.35 electrical interface on 25 pin connector
- » Optional adapter cable for V.35 physical interface

Physical	Installs within standard Skylinx 8000 chassis
Electrical Power	+ 5, +12, -12 vdc provided by Skylinx 8000 chassis

ENVIRONMENTAL (OPERATIONAL)

Temperature	0 to 50° C
Humidity	10 to 90% non-condensing

RF PERFORMANCE	NOW WITH ULTRA-LOW EB/NO OPERATION				
Operational Mode	HSCU	HSCU	HSCU	CU2	CU2
FEC	1/2	3/4	7/8	1/2	1/2
Modulation	QPSK	QPSK	QPSK	QPSK	QPSK
User Data Rates(kbps)	32 to 2048	32 to 2048	128 to 2048	32 to 160	32 to 160
Reed Solomon Rate	160, 145	160, 145	160, 145	n/a	n/a
Eb/No for BER=10 ⁻⁷ (dB) ¹	3.8	4.8	6.0	7.0	7.0

Note

¹ Eb/No values shown are IF looped in presence of identical modulated adjacent carriers spaced at 1.4 times the symbol rate

CONTACT

SALES

TEL +1.760.476.2200 FAX +1.760.929.3941 WEB www.viasat.com

SAN DIEGO 6155 El Camino Real, Carlsbad, CA 92009

ATLANTA 1725 Breckinridge Plaza, Duluth, GA 30096 TEL +1.678.924.2400 FAX +1.678.924.2480